TASK ORDER (TO)
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Morpheus

in support of:

National Security Innovation Network (NSIN)

Issued to:
All contractors under the General Services Administration (GSA) One Acquisition Solution for Integrated Services (OASIS) Multiple Award (MA) Indefinite Delivery/Indefinite Quantity (IDIQ) – Pool 1 Unrestricted Contract

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C.1 BACKGROUND

The National Security Innovation Network (NSIN) is a U.S. Department of Defense (DoD) program office under the Under Secretary of Defense for Research and Engineering that seeks to create new communities of innovators to solve national security problems. NSIN partners with national research universities and the venture community to reinvigorate civil-military technology collaboration. NSIN focuses on human capital innovation (i.e., developing and enabling innovators and human-centered networks to solve national security problems) rather than making investments in specific technologies, Government research and development programs, or startups. In support of this mission, NSIN provides tools, training, and access to DoD assets that enable entrepreneurs and intrapreneurs to develop and commercialize high-potential products in the national interest.

NSIN addresses complex national security problems by helping solution providers better connect with the defense industry marketplace. NSIN leads the development of hundreds of innovative projects that require access to both traditional and non-traditional suppliers. NSIN consists of a portfolio of programs designed to build a defense innovation workforce that creates ventures relevant to both national security and high-potential civilian applications. These programs are organized in three broad categories: national service, collaboration, and acceleration.

a. NSIN's National Service Portfolio creates new opportunities for national security service for those who might not otherwise participate in national security innovation.
b. NSIN's Collaboration Portfolio connects innovators inside and outside of the DoD to solve national security problems.
c. NSIN's Acceleration Portfolio provides funding, prototyping, and infrastructure resources needed to translate high-potential concepts into minimum viable products or prototypes.

NSIN is headquartered in Arlington, Virginia (VA) and has 11 Regions throughout the U.S. to provide an organizational and management construct for the execution of its work. Each region includes a hub city representing the most significant proximity to a concentration of DoD customers and partners, academic partners and Tier 1 research institutions, and a robust commercial innovation/venture ecosystem to engage.

In partnership with the FEDSIM, NSIN is addressing the technical gaps faced by the DoD and other non-DoD organizations. With the rapid advancement of technology, new and improved systems are changing the threat environment. This is resulting in a need for technology to be rapidly researched, developed, tested, evaluated, and deployed into operational environments. The Morpheus TO will facilitate the NSIN mission and contains the requisite technical scope to provide enhanced capabilities for applying NSIN innovative solutions to mission partner problem sets.

C.1.1 PURPOSE

The purpose of the Morpheus TO is to provide the NSIN and its mission partners scalable and comprehensive project-based solutions that explore and deploy a broad range of solutions that enable technologies to be rapidly matured and transitioned into operational environments and to solve problems faced by NSIN and the NSIN Mission Partner community. NSIN Mission Partners include the DoD and Federal civilian agencies and organizations.

C.1.2 AGENCY MISSION

NSIN is a program office within the Office of the Under Secretary of Defense (USD) for Research and Engineering (R&E), with a mission to build communities of innovators to generate new solutions to national security problems. NSIN develops programs that are designed to help other DoD entities from the Military Services, Joint Staff, Combatant Commands, and Defense Agencies and Field Activities solve problems with non-traditional partners from the early-stage venture community and academia. NSIN is organized around three core lines of effort. These lines of effort include:

a. Creating new opportunities for national security service by building models of service that account for generational and cultural differences between the military, academic, and venture communities and providing flexible pathways to official service within the DoD.
b. Solving national security problems by collaborating with partners from the academic and venture communities by engaging new problem solvers in collision events with DoD customers that generate novel concepts and solutions and building a national network of problem-solving ecosystems that leverage the competitive advantages of regions and commercial innovation hubs for DoD customers.
c. Accelerating adoption of novel concepts and solutions by facilitating engagement with DoD end users and transition partners to stimulate dual-use venture growth and improving Technology Transfer and Transition (T3) rates for DoD lab technology through dual-use commercialization via early-stage ventures.

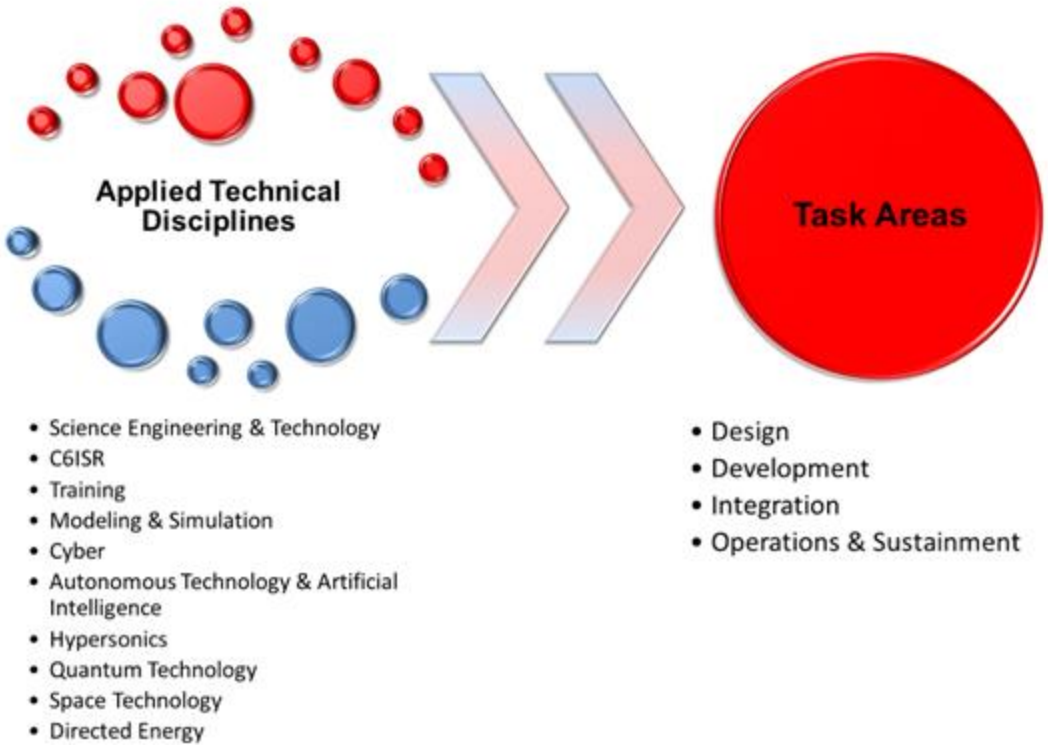
C.2 SCOPE

The scope of this TO is to provide a broad range of solutions that will enable the maturation of existing technologies to optimize mission capabilities of NSIN's Mission Partners. NSIN's Mission partners are U.S. Government organizations, commands and bureaus who serve in the defense of national security**.** The scope of these efforts covers all aspects of project design, development, engineering and integration, and Operations and Sustainment (O&S). The scope of projects anticipated under this TO covers a broad set of missions and priorities identified as the Applied Technical Disciplines (ATDs) below. The ATDs are those major project focus areas and priorities that mission partners are seeking to advance concepts and capabilities.

NSIN and its mission partner organizations seek a broad range of contractor solutions to assist with advancing technology concepts, requirements, and capabilities using a variety of evaluation experiments, techniques, simulations, virtual and remote capabilities, and demonstrations as well as live testing in both emulated and operational scenarios and environments.

The projects encompassed in this acquisition support a broad set of technological and operational mission areas covering all relevant DoD domains (e.g., land, sea, air, space and near space, and cyberspace) and include work to be conducted in both the Continental United States (CONUS) and OCONUS locations.

The task areas (i.e., Project Design, Development, Engineering and Integration, and O&S) broadly represent the life cycle and phases in which any customer/mission partner project may exist when accessing the Morpheus TO via a TDL. See Section H.24 for more information on the TDL process. The ATDs shown below are major project focus areas and priorities that mission partners are seeking to advance concepts and capabilities.



The following is summary of the major ATDs:

Science, Engineering, and Technology: This includes special studies, basic and applied research, Modeling and Simulation (M&S), and other support related to joint capability areas including space, counterterrorism, critical infrastructure protection, Chemical, Biological, Radiological, and Nuclear (CBRN) Defense (CBRND), emerging infectious disease threats, space surveillance and awareness, alternative energy, collection concepts and studies, microelectronics, and other targeted technology demonstration needs.

Command, Control, Communications, Computers, Cyber-Defense and Combat Systems and Intelligence, Surveillance, and Reconnaissance (C6ISR): This includes the advancement of sensors, radars, optical tracking systems, and other technologies (e.g., prototypes, Commercial Off-the-Shelf (COTS), Government Off-the-Shelf (GOTS)) that can be based on physical platforms (e.g., vehicles) or within cyberspace or the virtual environment, in support of C6ISR capabilities. Additional capabilities include demonstration and evaluation of new sources and methods including advanced Geospatial Intelligence (GEOINT), advanced Signals Intelligence (SIGINT), Measurement and Signal Intelligence (MASINT), biometrics, forensics, Open-Source Intelligence (OSINT), and information operations.

Advanced Training: This includes next-generation, multi-domain training environments that enable acceleration of efforts. This includes traditional and non-traditional, simulated, immersive, and virtual-based training, wargaming, and live training and exercises.

Modeling and Simulation (M&S): The contractor shall leverage DoD and Department of Energy National Lab capabilities as appropriate for the advancement of technologies listed below. The contractor shall also leverage academic partnerships with leading M&S institutions (such as the University of Central Florida Institute for Simulation and Training, Old Dominion

University, and the Naval Postgraduate School) for the advancement of technologies listed below. This includes provide various M&S capabilities such as:

a. Augmented Reality (AR), Virtual Reality (VR), Mixed Reality (MR), and Extended Reality (XR).
b. Applied Artificial Intelligence (AI) and Machine Learning (ML) for predictive modeling.
c. Simulation-based training systems.
d. Immersive visualization, 3D and immersive virtual environments.
e. Model-based design, model-based systems engineering, digital engineering, and digital twin.
f. Virtual prototyping and rapid prototyping.
g. Physics-based modeling (e.g., structures, blast, vehicle dynamics, finite element analysis, fluid mechanics, plume modeling, weather modeling).
h. Discrete event, stochastic modeling, and scenario development.
i. Game theory and end-game analysis.
j. Readiness modeling (e.g., operational readiness and mission readiness).
k. Cost modeling and cost analysis.
l. Business process modeling.
m. Virtual presence, telepresence, and distance learning technologies.

Cyber: This includes provide capabilities to meet the security challenges and potential leap-ahead capabilities for military operations requiring enhanced command, control and situational awareness, and autonomous operations. Ability to gain and maintain the U.S. technological edge in cyberspace in the face of rapid evolution is essential to maintaining mission readiness. America is a target, whether from terrorists seeking to attack our citizens; malicious cyber activity against personal, commercial, or Government infrastructure; or political and information subversion. New threats to commercial and military uses of space are emerging, while increasing digital connectivity of all aspects of life, business, Government, and military creates significant vulnerabilities. During conflict, attacks against our critical defense, Government, and economic infrastructure must be anticipated. Focus areas include cyber defense, resilience, and the continued integration of cyber capabilities into the full spectrum of military operations.

Autonomous Technology and Artificial Intelligence (AI): This includes the advancement of autonomous technology which extends and complements human capabilities. Advantages include persistence, size, speed, maneuverability, and reduced risk to human life. The DoD targets seamless integration of diverse unmanned/mixed team capabilities that provide flexible options for the Joint Force. The contractor shall leverage military applications of autonomy, AI, and ML, including rapid application of commercial breakthroughs, to gain competitive military advantages to enable U.S. forces to leverage technology and data to improve defense posture through more effective and efficient operations.

Hypersonics: This includes the advancement of hypersonic technology inclusive of developing new technologies to improve high-speed and hypersonic systems. For example, the contractor executes projects to advance and integrate those technologies into some of the DoD's Major Range and Test Facility Bases (MRTFB). The new T&E technologies will span multiple disciplines including flight test, ground test, instrumentation and diagnostics, and M&S.

Quantum Technology: This includes the advancement of quantum computing and other quantum-related capabilities. Quantum computers pose an impending threat to secure communications. Continued U.S. dominance in quantum information science will keep the country ahead of these risks, and National Security Agency (NSA) crypto modernization will protect the most sensitive communications against a quantum computer attack. Quantum sensing will deliver new and assured precision position, navigation, and timing capabilities, keeping U.S. forces safe in Global Positioning System (GPS)-denied theaters. Quantum networks will deliver drastically enhanced sensors for finding and fixing elusive targets and will deliver resource multiplying effects for commercially developed quantum computers to solve DoD's hardest analytical problems.

Space Technology and Operations: This includes timely and assured space capabilities to mature the military doctrine for space power through enhancements in space technologies. The TO emphasis will focus on resilience, reconstitution, and operations to ensure space capabilities add protection and resiliency to the space fleet.

Directed Energy: This includes the advancement of technologies that relate to the production of a beam of concentrated electromagnetic energy or atomic or subatomic particles. In addition, this ATD may address power scaling, jitter reduction, laser size and weight, adaptive optics, beam propagation, and target tracking.

C.3 CURRENT ENVIRONMENT

Historically, NSIN has largely supported emerging technology in the early concept and prototype development areas for its mission partners. This acquisition will continue to build upon NSIN's mission as well as provide services beyond those areas that accelerate technology and mission capabilities. The TO will enhance capabilities, inclusive of integration and sustainment of operational technologies, by offering a centralized vehicle for moving products out of the prototype stage and into operational mission conditions.

C.4 OBJECTIVES

The objectives of the Morpheus TO are to:

a. Accelerate the development of early-stage concepts and technologies and transition them into operational use.
b. Solve problems across the Government that advance science and technology for the interests of the Nation's security and welfare.
c. Advance NSIN Mission Partners' investments through a variety of activities including research and development, building partnerships and coalitions, and leveraging resources and capabilities across the Government to increase the effectiveness of the mission and achieve efficiencies.

C.5 TASKS

The following tasks are detailed below:

a. Task 1 – Provide TO Management
b. Task 2 – Project Design
c. Task 3 – Project Development

d. Task 4 – Project Engineering and Integration
e. Task 5 – Project Operations and Sustainment (O&S)

C.5.1 TASK 1 – PROVIDE TO MANAGEMENT

The contractor shall provide program management support under this TO. This includes the management and oversight of all activities performed by contractor personnel, including subcontractors, to satisfy the requirements identified in this Performance Work Statement (PWS).

The contractor's TO governance structure shall be scalable to effectively support a multi-tenant environment, which is defined as multiple Government entities with the need to separately track project management and contract elements such as requirements, deliverables, costs, and ceiling. The contractor shall use a Work Breakdown Structure (WBS), a component of the Project Management Plan (PMP), during the performance of all projects. During the life of the TO, the Government will require varying levels of support on behalf of NSIN and its mission partners.

The Government will utilize the term TDL to identify and track specific projects in support of NSIN Mission Partner operational support needs. The Government anticipates issuing a range of TDLs on an annual basis and initiating TDLs at varying times within a Period of Performance that consist of various appropriation types (e.g., one-year, two-year, no-year, etc.) depending on the bona fide need. These efforts can be severable or non-severable in nature, further impacting the contractor's level of project and financial tracking required to ensure that the Government maximizes the availability of funds. The Government will include the severability designation in the request for support.

C.5.1.1 SUBTASK 1 – COORDINATE A PROJECT KICK-OFF MEETING

The contractor shall schedule, coordinate, and host a Project Kick-Off Meeting at the location approved by the Government **(Section F, Deliverable 01)**. The meeting shall provide an introduction between the contractor personnel and Government personnel who will be involved with the TO. The meeting shall provide the opportunity to discuss technical, management, and security issues, and travel authorization and reporting procedures. At a minimum, the attendees shall include the contractor's Key Personnel, the Morpheus Technical Point of Contact (TPOC), other relevant Government personnel, the FEDSIM CO, and the FEDSIM COR.

At least three days prior to the Project Kick-Off Meeting, the contractor shall provide a Project Kick-Off Meeting Agenda **(Section F, Deliverable 02)** for review and approval by the FEDSIM COR and the Morpheus TPOC prior to finalizing. The agenda shall include, at a minimum, the following topics/deliverables:

a. Points of Contact (POCs) for all parties.
b. Personnel discussion (e.g., roles and responsibilities and lines of communication between contractor and Government).
c. Project Staffing Plan and status.
d. Transition-In Plan and discussion.
e. Security discussion and requirements (e.g., building access, badges, and Common Access Cards (CACs)).
f. Financial reporting and invoicing requirements.

g. Quality Management Plan (QMP).
h. TO management portal solution.
i. PMP.
j. Award Fee discussion.
k. TDL(s) and TDL process.

The Government will provide the contractor with the number of Government participants for the Project Kick-Off Meeting, and the contractor shall provide copies of the presentation for all present.

The contractor shall draft and provide a Project Kick-Off Meeting Minutes Report **(Section F, Deliverable 03)** documenting the Project Kick-Off Meeting discussion and capturing any action items.

C.5.1.2 SUBTASK 2 – PREPARE A MONTHLY STATUS REPORT (MSR)

The contractor shall develop and provide an MSR **(Section J, Attachment D) (Section F, Deliverable 04)**. The MSR shall include the following:

a. Activities during the reporting period, by project (include ongoing activities, new activities, activities completed, and progress to date on all above-mentioned activities). Each section shall start with a brief description of the project. This includes a list of all deliverables delivered during this period and status of Government approval.
b. Any specific problems and corrective actions taken. Also include issues or concerns and proposed resolutions to address them.
c. Personnel gains, losses, and status (security clearance, etc.).
d. Government actions required.
e. Schedule (e.g., major tasks, milestones, and deliverables; planned and actual start and completion dates for each; and percentage of work completed).
f. Summary of trips taken, conferences attended, etc. (attach Trip Reports to the MSR for the reporting period).
g. Cost incurred by project and CLIN.
h. Accumulated invoiced cost for each CLIN up to the previous month.
i. Projected cost of each CLIN for the current month.

C.5.1.3 SUBTASK 3 – CONVENE TECHNICAL STATUS MEETINGS

The contractor Program Manager (PM) shall convene a monthly Technical Status Meeting with the designated Morpheus TO TPOC, NSIN Representatives, FEDSIM COR, and other Government stakeholders **(Section F, Deliverable 05)**. The purpose of this meeting is to ensure all stakeholders are informed of the monthly activities and MSR, provide opportunities to identify other activities and establish priorities, and coordinate resolution of identified problems or opportunities. The contractor PM shall provide minutes of these meetings, including attendance, issues discussed, decisions made, and action items assigned, to the FEDSIM COR **(Section F, Deliverable 06)**.

C.5.1.4 SUBTASK 4 – PREPARE AND UPDATE A PROJECT MANAGEMENT PLAN (PMP)

The contractor shall document all contractor activities in a PMP **(Section F, Deliverable 07)** and shall provide it to the Government.

The PMP shall:

a. Describe the proposed management approach.
b. Contain detailed Standard Operating Procedures (SOPs) for all tasks and subtasks.
c. Include milestones, tasks, and subtasks required in this TO.
d. Provide for an overall WBS with a minimum of three levels and associated responsibilities and partnerships between Government organizations.
e. Describe the contractor's approach to risk management, including mitigating supply chain risk in the provision of supplies and services to the Government, under this TO.
f. Describe in detail the contractor's approach to communications, including processes, procedures, format, and other rules of engagement between the contractor and the Government.
g. Include the contractor's QMP.
h. Include subcontractor management.

The PMP is an evolutionary document that shall be updated annually at a minimum and as project changes occur. The contractor shall work from the latest Government-approved version of the PMP.

C.5.1.5 SUBTASK 5 – PREPARE TRIP REPORTS

The Government will identify the need for a Trip Report when the request for travel is submitted **(Section F, Deliverable 08)**. The contractor shall keep a summary of all long-distance travel including, but not limited to, the name of the employee, location of travel, duration of trip, and POC at travel location. Trip reports shall also contain Government approval authority, total cost of the trip, a detailed description of the purpose of the trip, and any knowledge gained. At a minimum, Trip Reports shall be prepared with the information provided in **Section J, Attachment E**.

C.5.1.6 SUBTASK 6 – PROVIDE QUALITY MANAGEMENT

The contractor shall be responsible for ensuring quality across the TO inclusive of each project/TDL and the associated efforts that encompass them. For example, this includes ensuring quality with respect to procurement and development of materials and equipment, project logistics, environment and personnel safety, financials and project management, and other quality-related issues that impact the success of projects.

In addition, the contractor shall identify and implement its approach for providing and ensuring quality throughout its solution to meet the requirements of the TO. The contractor shall provide a QMP and maintain and update it as changes in the program processes are identified **(Section F, Deliverable 09)**. The contractor's QMP shall describe the application of the appropriate methodology (e.g., quality control and/or quality assurance) for accomplishing TO performance expectations and objectives. The QMP shall describe how the appropriate methodology integrates with the Government's requirements.

C.5.1.7 SUBTASK 7 – TRANSITION-IN

The contractor shall provide a Transition-In Plan **(Section F, Deliverable 10)** as required in Section F. The contractor shall ensure that there will be minimum service disruption to vital Government business and no service degradation during and after transition. The contractor shall implement its Transition-In Plan No Later Than (NLT) 15 calendar days after award, and Full Operational Capability (FOC) shall be achieved 45 calendar days after Project Start date. FOC is defined as the point in time when the contractor is capable of full performance of task order requirements. In the Transition-In Plan, the contractor shall identify how it will achieve FOC, to include but not limited to, the following:

a. TO management.
b. Transition of Key Personnel roles and responsibilities.
c. TDL readiness.
d. Resourcing Strategy.
e. Schedule and milestones
f. Actions required of the Government
g. Stakeholder coordination and communication

C.5.1.8 SUBTASK 8 – TRANSITION-OUT

The contractor shall transition out when required by the Government. The Transition-Out Plan shall facilitate the accomplishment of a seamless transition from the incumbent to incoming contractor/Government personnel at the expiration of the TO. The contractor shall provide a Transition-Out Plan within six months of PS **(Section F, Deliverable 11)**. The contractor shall review and update the Transition-Out Plan in accordance with the specifications in Sections E and F.

In the Transition-Out Plan, the contractor shall identify how it will coordinate with the incoming contractor and/or Government personnel to transfer knowledge regarding the following:

a. Project management processes.
b. POCs.
c. Location of technical and project management documentation.
d. Status of ongoing technical initiatives.
e. Appropriate contractor-to-contractor coordination to ensure a seamless transition.
f. Transition of Key Personnel roles and responsibilities.
g. Schedules and milestones.
h. Actions required of the Government.

The contractor shall also establish and maintain effective communication with the incoming contractor/Government personnel for the period of the transition via weekly status meetings or as often as necessary to ensure a seamless transition-out.

The contractor shall implement its Transition-Out Plan NLT six months prior to expiration of the TO.

C.5.1.9 SUBTASK 9 – IMPLEMENT A TASK ORDER MANAGEMENT PORTAL

The objective of the TO management portal is to introduce efficiencies, streamline the flow of TO information, and provide a central location for the Government and contractor to access management-level information regarding the status of TO activities.

The contractor shall implement and maintain a secure, web-based portal capability certified up to Controlled Unclassified Information (CUI) that provides program management views/reporting, tracks metrics, and stores artifacts at the unclassified level. Government-approved contractor personnel and Government personnel shall have access to the portal worldwide. The portal content shall be maintained and revised throughout the duration of the TO. The contractor shall implement cybersecurity best practices to protect the portal system and data contained within the portal.

At a minimum, the portal shall provide the following:

a. Secure logical access controls with user-based views.
b. A dashboard that identifies each TO Project / TDL:
    1. Customer POC and entity.
    2. Lead contractor POC information.
    3. Project duration.
    4. Applicable schedule information.
    5. Allocated budget by CLIN.
    6. Funded amount by CLIN.
    7. Incurred cost amount by CLIN.
    8. Invoiced amount, invoice number, and date(s).
c. A staffing roster inclusive of name, TDL, functional role, location, and clearance level.
d. An automated workflow for Government review/approval of Requests to Initiate Purchase (RIPs), Travel Authorization Requests (TARs), deliverables, and TDLs, inclusive of the Morpheus TPOC and FEDSIM COR.
e. An organized document library to store management-related deliverables (e.g., monthly reports, meeting minutes, financial reports, PMP, and TO deliverables).
f. Risk management information, including identification of risks, severity, and extent; identification of security tool effectiveness; and risk-based prioritization of efforts.
g. Lessons learned database to assist with process improvement projects.

The contractor shall deliver a proposed portal solution at the Project Kick-Off Meeting **(Section F, Deliverable 12)** for approval from the FEDSIM COR. The contractor shall implement and have its portal solution fully operational by 90 days after the TO base year start date. The portal capabilities are expected to evolve and adapt to meet the mission needs of the Government.

C.5.1.10 SUBTASK 10 – PREPARE AND UPDATE TECHNICAL DIRECTION PLAN(S) (TDPs)

This will be a project based TO with multiple projects operating concurrently among mission partners.

The contractor shall provide a TDP (**Section F, Deliverable 13**) in response to the FEDSIM CO-approved TDL per Section H.25. The contractor shall tailor the requirements of each TDP to

match the complexity of the project requirements. The TDPs are evolutionary documents and shall be updated as necessary during the execution of the TDLs. The contractor shall work from the latest FEDSIM approved version of the TDP.

At a minimum, each TDP shall include the following:

a. Summary of the Government's requirements that includes, at a minimum, the project specifications, deliverable characteristics, structure, activities, applicable regulatory policies and procedures, conditions, risks, and risk mitigations, from project inception through project closeout. All project milestones shall be detailed with clear, unambiguous target dates.
b. An initial schedule submission that is updated on a monthly basis, at minimum. Actual start dates from the baseline version shall be tracked and percent of work complete shall be monitored and reported in the process of schedule management.
c. Project Kick-Off Meeting including transition-in and technical approach discussion.
d. Project-level technical status meetings.
e. PMP including supervision and execution of the work as well as tracking and managing cost, performance, and schedule. Where applicable, the plan shall specifically address management of subcontractors, risks, procurement, and logistics.
f. Travel and ODC considerations.
g. Security considerations.
h. Detailed project cost estimate broken out by CLIN.

Once the TDP has been approved by the FEDSIM CO or FEDSIM COR, the contractor shall schedule and coordinate a TDP Project Kick-Off Meeting at a location approved by the Government. Project Kick-Off Meetings may be held virtually pending approval from the FEDSIM COR. The meeting will provide an introduction between the contractor personnel and Government personnel who will be involved with the project. The meeting will provide the Government and the contractor with an opportunity to discuss technical, management, and security issues as well as other TO processes and procedures. At a minimum, the attendees shall include the contractor PM, relevant Government representatives, the NSIN TPOC, and the FEDSIM COR.

Prior to the Program Kick-Off Meeting, the contractor shall provide a TDP Kick-Off Meeting Agenda. The agenda shall include, at a minimum, the following topics:

a. Introduction of team members and personnel including roles, responsibilities, and lines of communication between the contractor and the Government.
b. Discussion of the TDL requirements.
c. Discussion of the cost estimate.
d. Discussion of staffing and status.

The contractor shall draft and provide TDP Project Kick-Off Meeting Minutes documenting the Project Kick-Off Meeting discussion and capturing any action items. Meeting minutes shall be made available upon request.

If there is a conflict between the TDP and the TO, the TO shall always take precedence. The FEDSIM CO will approve all changes.

C.5.1.11 SUBTASK 11 – ACCOUNTING FOR SERVICE CONTRACT REPORTING

The contractor shall report ALL contractor labor hours (including subcontractor labor hours) required for performance of services provided under this TO. The contractor shall completely fill in all required data fields using the following web address: http://www.sam.gov.

Reporting inputs will be for the labor executed during the period of performance during each Government Fiscal Year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported NLT October 31 of each calendar year. Contractors may direct questions to the support desk at: http://www.sam.gov.

C.5.2 TASK 2 – PROJECT DESIGN

During the project design phase, the contractor shall provide a broad range of design activities. This phase of the project may require more extensive planning, research, and requirements gathering and understanding depending on the mission partners' needs, resources, and progress with the existing plans and capabilities. In some cases, mission partners may have existing project and test capabilities that require minimal design activities and can begin project execution immediately, while others may need support in strategically planning and designing a new capability. All specific project requirements will be provided to the contractor via a TDL. Additionally, the contractor may be required to work with concepts or designs from other contractors. Subject matter expertise shall cover a broad set of engineering, technological, scientific, mechanical, and environmental disciplines.

Unless otherwise required by the Government, all designs and design changes shall be documented in their as-built configuration with respect to drawings and specifications.

Project design activities may include, but are not limited to:

a. Analyzing mission needs and objectives.
b. Analyzing issues (e.g., threats and targets).
c. Conducting extensive research on T&E plans and objectives.
d. Performing feasibility studies.
e. Performing requirements gathering.
f. Conducting scientific studies and experimentation.
g. Providing concept development.
h. Providing scenario development.
i. Creating relevant operational environments.
j. Performing range design.
k. Performing model design.
l. Performing data collection system design.
m. Providing flight test planning.
n. Developing designs (e.g., Preliminary Design Review, Critical Design Review, and Final Design Review) for new or existing test capabilities.
o. Performing systems engineering.
p. Developing test plans and procedures.
q. Modifying existing test plans and procedures.

r. Redesigning test capabilities.
s. Researching safety and conducting safety studies.
t. Assisting in the exploration and development of technical standards.
u. Performing environmental planning and impact assessment.

Deliverables may include software, source code and other related documentation, designs, studies, reports, drawings, schematics, presentations, and meetings **(Section F, Deliverable 14)**. Specific Government-issued templates and performance criteria will be provided in the TDL and shall be addressed in the contractor's project plan.

C.5.3 TASK 3 – PROJECT DEVELOPMENT

During the project development phase, the contractor shall provide a range of development activities in support of project designs, plans, concepts, and requirements. Specific requirements in this phase will be provided in the TDL as well as requirements developed through the progression of the project lifecycle. Additionally, the contractor may be required to work with concepts or designs from other contractors. Subject matter expertise shall cover a broad set of engineering, technological, scientific, mechanical, and environmental disciplines.

This project development task is NOT exclusive to developing test capabilities; other types of development including systems engineering activities may be required per the TDL to ensure, enhance, or optimize engineering, technological, scientific, or mechanical capabilities. In general, project development requires all project resourcing and may include, but is not limited to:

a. Providing technology development and other technical support.
b. Prototyping.
c. Developing software and hardware.
d. Fabricating materials and equipment.
e. Fabricating facilities, labs, and other testing areas (fixed and mobile sites).
f. Manufacturing components.
g. Altering and modifying existing equipment, hardware, software, etc.
h. Developing new features for existing software and hardware components.
i. Modifying existing platforms, systems, and subsystems.
j. Performing network and communications architecture and design.
k. Developing novel test capabilities.
l. Establishing test articles, test sites, and instrumentation.
m. Developing threat representations and simulations for testing.
n. Developing tactics, techniques, and procedures to be tested.
o. Developing computational modeling tools.
p. Developing training in support of test activities.
q. Developing acceptance testing and subscale testing.
r. Performing test range development, enhancement, and modernization.
s. Developing test data collection systems.

Projects may require procuring materials and equipment, leasing of equipment and facilities, and providing other ancillary support integral to the project, which will be handled utilizing the appropriate contract CLINs (as identified in Section B). In addition, logistics (e.g., land, air, and sea) may be required to safely transport equipment and materials to identified destinations.

Deliverables may include software, source code and other related documentation, prototypes, requirements documentation, documented system milestones achievements, manuals, guides, checklists, training, maintenance requirements, acceptance inspection and testing documentation, and procedures **(Section F, Deliverable 15)**.

C.5.4 TASK 4 – PROJECT ENGINEERING AND INTEGRATION

During the project engineering and integration phase, the contractor shall conduct a broad range of engineering and integration support. Specific requirements in this phase will be provided in the TDL as well as requirements developed through the progression of the project lifecycle. Integration support will vary across projects based on the environment, infrastructure, equipment, and other TDL specific requirements. This project engineering and integration task is NOT exclusive to engineering and integrating test capabilities; other additional systems engineering activities may be required per the TDL. Engineering and integration efforts may require verification and validation to ensure safety, security, and policy compliance in accordance with requirements. Subject matter expertise shall cover a broad set of engineering, technological, scientific, mechanical, and environmental disciplines. Project engineering and integration includes all project resourcing and may include, but is not limited to:

a. Engineering and integration of technologies on platforms, systems, and other equipment.
b. Engineering and integration of major systems into facilities, labs, or other infrastructure.
c. Fabricating and modifying equipment required for integration.
d. Performing software and hardware engineering and integration.
e. Providing hybrid engineering and integration (e.g., physical test range and virtual M&S).
f. Engineering and integrating data links and communications networks that provide connectivity between systems, platforms, and end users.
g. Varying types of verification and validation testing to ensure interoperability, safety, and security.
h. Providing cross-domain interoperability.
i. Performing flight clearances and certification.
j. Performing test range or lab integration and scheduling.
k. Performing safety inspection testing and validation.
l. Obtaining certifications and accreditation.
m. Conducting applicable cybersecurity assessments.
n. Conducting training in support of engineering and integration.
o. Engineering and integrating test articles, test support equipment, and test sites and instrumentation.
p. Performing range engineering and integration (i.e., “range of ranges”).

Projects may require procuring materials and equipment, leasing of equipment, and providing other ancillary support integral to the project, which will be handled utilizing the appropriate contract CLINs (as identified in Section B).

Deliverables may include software, source code and other related documentation, integrated test plans, architectures, updated design documentation, documented system milestones achievements, manuals, guides, checklists, training, clearances/certifications, acceptance testing and results, and procedures **(Section F, Deliverable 16)**.

C.5.5 TASK 5 – PROJECT OPERATIONS AND SUSTAINMENT (O&S)

During the project O&S phase, the contractor shall conduct a broad range of O&S activities. Specific requirements in this phase will be provided in the TDL as well as requirements developed through the progression of the project lifecycle. Test operations may require extensive coordination between teams, organizations, joint services, or even international partners to ensure safety and security. This project O&S task is NOT exclusive to O&S test capabilities; other additional systems engineering activities may be required, as per the TDL. Subject matter expertise may cover a broad set of engineering, technological, scientific, mechanical, and environmental disciplines. Project O&S includes all project resourcing and may include, but is not limited to:

a. Performing cradle to grave management of O&S activities.
b. Operating platforms, equipment, and systems.
c. Performing physical testing, modeling, simulation, experimentation, and related analyses.
d. Performing scenario-based exercises or events that examine tactics, techniques, procedures, and doctrine versus physical or technological assets.
e. Collecting data and analyzing performance, quality, and other testing characteristics (e.g., lethality, survivability, environment impacts) in accordance with T&E requirements.
f. Performing test control room operations.
g. Conducting environmental impact assessment and monitoring.
h. Conducting cybersecurity-based events and scenarios.
i. Conducting simulations.
j. Performing hybrid operations (e.g., physical test range and virtual M&S).
k. Conducting operational assessments and live-fire testing to measure effectiveness and suitability.
l. Resolving outstanding test issues promptly, developing preventive measures, and documenting issue resolution procedures.
m. Recommending process improvements to improve operational efficiency and cost-effectiveness.
n. Evaluating current operational processes and recommending improvements.
o. Monitoring system operations and troubleshooting problems.
p. Addressing customer issues promptly and accurately.
q. Maintaining test equipment and facilities.
r. Conducting pre- and post-training.

Projects may require procuring materials and equipment, leasing of equipment, and providing other ancillary support integral to the project, which will be handled utilizing the appropriate contract CLINs (as identified in Section B). In addition, logistics (e.g., land, air, and sea) may be required to safely transport equipment and materials to identified destinations.

Deliverables may include reports, inspections, checklists, presentations, recommendations, debriefs, training, and other operations- and sustainment-based deliverables **(Section F, Deliverable 17)**.